Work Order ID 101529

May-13-13 1:04:06 PM

101529

Item ID: D3550-1

Accept *N900040100*

Setup Start *NS1*

Stop *NS2*

Revision ID:

Item Name: Strut

Start Date: 5/13/13 **Start Qty:** 4.00 *4*

Required Date: 5/24/13 **Req'd Qty:** 4.00 *4*

Cust Item ID:

Customer:

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** MLJ **Date:** 13-05-16 **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D3550	Rev B

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100 *100* Brake NC Brake NC	NC BRAKE **Memo** 1-Form per Dwg D3550 using DT 8012	0.00 0.00				(4)	SAD	13/11/04	
110 *110* Small Fab Small Fab	Small Fab **Memo** 1-form other end of strut at 1.8" using DT 89842-Deburr if necessary.	0.00 0.00				(4)	SAD	13/11/04	
120 *120* QC Quality Control	QC5- Inspect part completeness to step on W/O **Memo**	0.00 0.00	DAS 27 9-89 B11-04			4			

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ______ Part No. ______ NCR No. ______	**DISPOSITION** Rework ☐ Scrap ☐ Use-as-is ☐ Work Order Update ☐	**AGAINST DEPARTMENT/PROCESS** Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other ______
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	______	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	______	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	______	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 101529 *101529*

May-13-13 1:04:06 PM

Item ID: D3550-1 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID:

Item Name: Strut **Stop** *NS2*

Start Date: 5/13/13 **Start Qty:** 4.00 *4* **Cust Item ID:**

Required Date: 5/24/13 **Req'd Qty:** 4.00 *4* **Customer:**

Reference:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel M126 829	0.00				4	∅	13-11-4.	DAS 34 9-89
	Memo START TIME: 1:15 OVEN TEMPERATURE: 1400 FINISH TIME: 145.	0.00							
140 *140* QC Quality Control	QC3- Inspect Part Finish	0.00	DAS 27 9-89			4			
	Memo	0.00	13.11.05						
150 *150* Packaging Packaging	Identify as per dwg & Stock Location: 8T253	0.00				4x			DAS 26 9-89
	Memo	0.00							13-11-5.

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ____________	DISPOSITION	AGAINST DEPARTMENT/PROCESS
Part No. ____________	Rework ☐	Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐
NCR No. ____________	Scrap ☐	Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐
	Use-as-is ☐	Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐
	Work Order Update ☐	Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	____________	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	____________	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	____________	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 101529 *101529*

May-13-13 1:04:06 PM

Item ID:	D3550-1		**Accept**	*N900040100*	**Setup** **Start** *NS1*
Revision ID:					
Item Name:	Strut				**Stop** *NS2*
Start Date:	5/13/13	**Start Qty:** 4.00	*4*	**Cust Item ID:**	
Required Date:	5/24/13	**Req'd Qty:** 4.00	*4*	**Customer:**	
Reference:					

Run **Start** *NR1* **Stop** *NR2*

Approvals: **Process Plan:** ______ **Date:** ______ **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160*	QC21- Final Inspection - Work Order Release	0.00				[signature]	RM	13/11/07	
QC Quality Control	Memo	0.00							

[signature] 13-11-06

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ______ Part No. ______ NCR No. ______	**DISPOSITION** Rework ☐ Scrap ☐ Use-as-is ☐ Work Order Update ☐	**AGAINST DEPARTMENT/PROCESS** Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	**General**			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Picklist Print

May-13-13 1:04:05 PM

Work Order ID: 101529

Parent Item: D3550-1

Parent Item Name: Strut

Start Date: 5/13/13 **Required Date:** 5/24/13

Start Qty: 4.00 **Required Qty:** 4.00

Comments: IPP A 07.02.05 New iwssue EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TR0.500W.049 304 RD Tube .500 x .049W		Purchased	No			110	f	285.4590	1.7	**7.1578948**	SAD 13/11/04		

Location		Loc Qty	Loc Code	
GA		43.66		
	120633	43.66	M126466	7.1579
MAT017		241.799016		
	119087	0.000016		
	123449	141.799		
	125513	100		

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

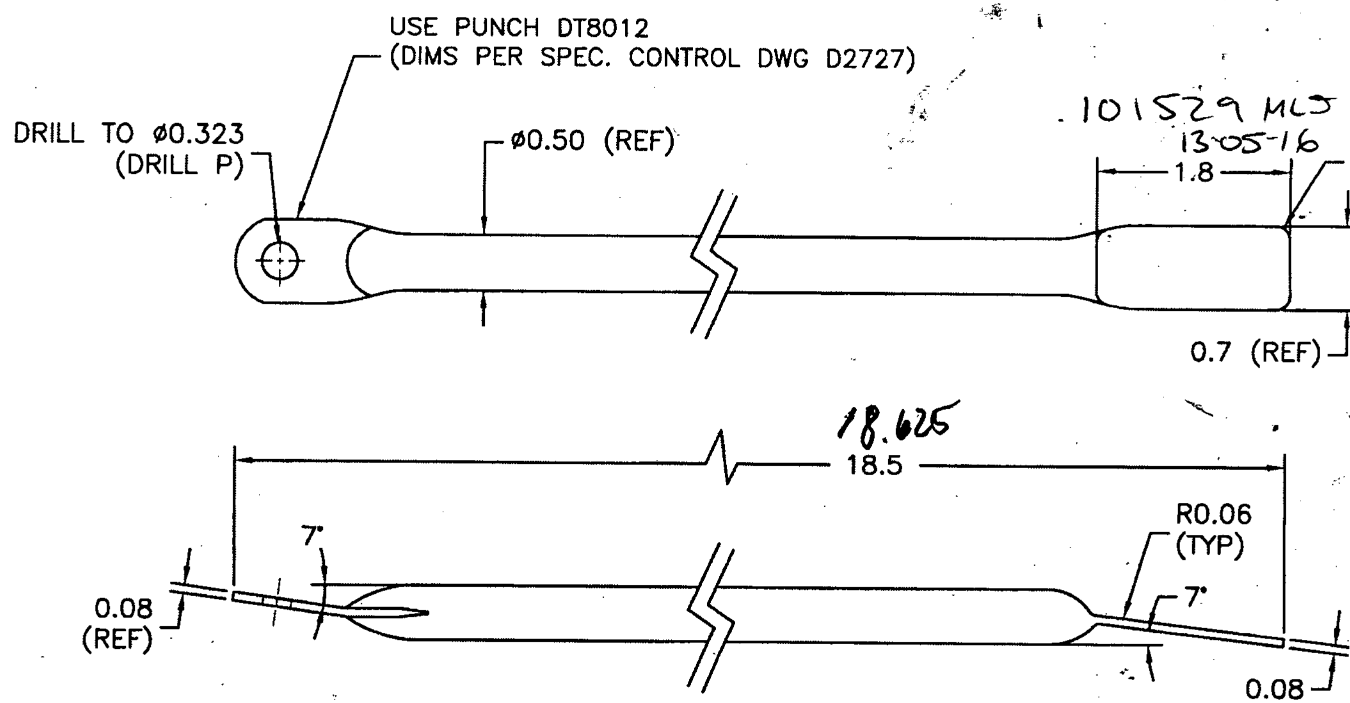
QA Closed: Date:

Work Order: ________	DISPOSITION	AGAINST DEPARTMENT/PROCESS			
Part No. ________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		________
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		________
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		________
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		



D3550-1 STRUT

NOTES:
1) MATERIAL: 304/316 SS SEAMLESS ROUND TUBE 0.500 OD X 0.049 WALL
(REF DART SPEC M304TR0.500W.049)
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
5) BREAK ALL SHARP CORNERS TO 0.010 MAX
6) IDENTIFY WITH P/N D3550-1 USING FINE POINT PERMANENT INK MARKER

RELEASED 07-02-27

DART

DESIGN: LE	DRAWN BY: LE
CHECKED: PH	APPROVED:
DATE: 07.02.13	

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. D3550 — REV. B — SHEET 1 OF 1

TITLE: STRUT — SCALE: NTS

REV	DATE	DESCRIPTION
A	06.10.24	NEW ISSUE
B	07.02.13	18.5 WAS 20.13; 1.8 WAS 1.5

DART AEROSPACE LTD

Description: Strut	Work Order: 101529
Inspection Drawing: D3550-1 Rev: B	Part Number: D3550-1

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
18.5	+/- 0.100	18.5	✓		M-T	SAP-1
0.08	+/- 0.030	0.102	✓		Vern	SEAB-08
7°	+/- ½	7°	✓		Angle level	SEAB-05
0.323	+0.004 -0.001	0.323	✓		Vern	SEAB-08
0.08	+/- 0.030	0.102	✓		Vern	SEAB-08
7°	+/- ½	7°	✓		Angle Level	SEAB-05
1.8	+/- 0.100	1.77	✓		Vern	SEAB-08
0.7	+/- 0.100	0.7	✓		Vern	SEAB-08

Measured by: SAM	Checked By: DAS 30 9-89	QC inspector: DAS 27 9-89	Engineering Approval (*if necessary*):
Date 13/11/04	Date 13/11/04	Date 13 11 04	Date